

Atty Docket No. 70012200.0065.0005  
Express Mail No. EV 460867187 US

Application No. 10/040,412  
Reply to 04/19/2004 Office Action

### REMARKS

Responsive to the Final Office Action dated April 19, 2004, Applicant hereby makes the following response. The present application was filed on January 7, 2002 and included Claims 1-34. In a response to the 03/27/2003 Restriction Requirement, Applicant elected Claims 1-8, 12-14 and 16 with traverse and canceled Claims 9-11, 15, and 17-34 as being directed to a nonelected invention with the proviso that these claims may be prosecuted in a subsequent application. Claims 1 and 14 have been amended. The amendments to Claim 14 are only to correct typographical errors and do not include any substantive changes. Accordingly, Claims 1-8, 12-14 and 16 remain pending for prosecution with Claims 1 and 14 being independent.

#### **I. Summary of the Claims**

The present invention is concerned with a novel ammonia-free, clear, crosslinked, polymeric gel composition. Clear, hydrophobic gel compositions typically turn opaque or cloudy when combined with water, even at extremely low levels. Moreover, in the presence of water, these gels exhibit a "wetness" because of the incompatibility of the hydrophobic gel material and the water. Moreover, these hydrophobic gel compositions are incompatible with many desirable water-soluble additives including pH color indicators, fluorescent dyes, fragrance components, and cross-linking agents. Hydrophilic polymer gel compositions, on the other hand, typically do contain water. However, when hydrophobic liquids such as perfumes, insecticides, and insect repellants are added to the gel, the gels turn opaque, translucent or heterogenous. The present invention therefore discloses a polymeric gel composition that contains water yet remains clear even with the addition of hydrophobic liquids such as perfumes, insecticides or insect repellants.

Independent Claim 1 recites a gel composition comprising the reaction product of a microemulsion. The microemulsion contains from 1-70 wt.% of an anhydride functionalized

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polymer, from 0.1-40 wt.% of a cross-linking agent, from 0.01-50% wt.% surfactant, 0.01-30 wt.% water, and from 10-95 wt.% a hydrophobic liquid, based on the total weight of the polymeric gel composition. The gel composition of the present invention is substantially clear.

Independent Claim 14 recites a clear, crosslinked, polymeric gel composition comprising the reaction product of a microemulsion. The microemulsion contains from 1-40 wt.% of an anhydride functionalized polymer selected from maleinized polybutadiene polymers, maleinized polyisoprene polymers, maleinized polybutadiene/styrene polymers or mixtures thereof. In addition to the polymer, the microemulsion contains from 0.1-20 wt.% of a polyamine cross-linking agent, from 0.1-20% wt.% anionic or cationic surfactant, and 0.1-10 wt.% water. The microemulsion also contains from 10-95 wt.% a hydrophobic liquid perfume, a hydrophobic liquid insecticide or a hydrophobic liquid insect repellant, based on the total weight of the polymeric gel composition, with the combined proportion of the water and the hydrophobic liquid perfume, hydrophobic liquid insecticide or hydrophobic liquid insect repellant equaling at least 30 wt.%, based on the total weight of the polymeric gel composition.

## **II. Rejection of Claims 1-8 over Miyazaki**

Claims 1-8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by French Patent Publication No. 2,455,068 to Miyazaki (hereinafter "Miyazaki"). In the alternative, Claims 1-8 have been rejected under 35 U.S.C. § 103(a) as being obvious over Miyazaki. Applicant respectfully submits that Claims 1-8 are not anticipated nor rendered obvious by Miyazaki because this reference fails to disclose every element and limitation of these claims. Referring now to Claim 1, the preamble describes the present invention as a "clear, crosslinked, polymeric gel composition." Miyazaki does not disclose or even refer to a clear gel composition. Element (c) of Claim 1 of the present invention further requires the clear, crosslinked, polymeric gel composition to include "from 0.01-50% wt.% surfactant." As described in the specification

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and, in particular, the examples, this element is required for the reason that it is necessary to include a surfactant in order to produce a clear and stable gel. Miyazaki fails to disclose the use of a surfactant.

The Office Action at page 2, ¶ 4, states that "Claim 4 of Miyazaki requires ethylene glycol, glycol or petanetrol [sic], any of which can constitute the instant unspecified surfactant." These compounds, however, are antifreeze compounds as stated in Claim 4 itself. These compounds are used to lower the freezing point of water in the Miyazaki formulation and do not function as surfactants. That is, these compounds do not reduce the surface tension of water when dissolved therein. One skilled in the art knows that surfactants have both hydrophilic and hydrophobic components so that the surfactant molecules will align at the surface of water such that the hydrophilic end of the molecule faces toward the water and the hydrophobic end of the molecule is squeezed away therefrom. Glycol and ethylene glycol are straight chain aliphatic compounds terminated at both ends by a hydroxyl group. Glycols, therefore, cannot function as surfactants. Claim 4 also discloses 3-methyl--1,3,5-pentane-triol as an available antifreeze. This compound also does not function as a surfactant. Accordingly, Miyazaki fails to disclose the use of a surfactant.

Thus, because Miyazaki fails to disclose every limitation of independent Claim 1, this reference does not anticipate this claim or the claims depending therefrom and cannot therefore be used to support a rejection under § 102(b). For the same reasons, Miyazaki does not render the present invention, as claimed in Claims 1-8, obvious. Accordingly, Applicant respectfully requests withdrawal of this rejection.

### **III. Rejection of Claims 1-8, 12 and 13 over Minatono**

Claims 1-8, 12, and 13 have been rejected under 35 U.S.C. § 102(b) as being anticipated by under U.S. Patent No. 4,362,841 to Minatono et al. (hereinafter "Minatono"). In the

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alternative, these claims have been rejected under 35 U.S.C. § 103(a) as obvious over Minatono. Applicant respectfully submits that Claims 1-8, 12-14 and 16 are not anticipated nor rendered obvious by Minatono because this reference fails to disclose every element and limitation of these claims.

Minatono's hydrophilic polymer composition contains between 4 to 400 parts by weight water per 100 parts by weight of a rubber component including liquid polyisoprene rubber or modified liquid polyisoprene rubber and a cross-linking agent or a plasticizer. When hydrophobic liquids, such as perfumes, insecticides, and insect repellants, are added to hydrophilic gels, such as that disclosed by Minatono, the resulting gel composition is opaque, translucent or heterogeneous, *but not* clear. Applicant has produced the Minatono gel composition by following the examples therein and all gels produced were opaque. A Declaration by Randall Richards in support thereof was previously submitted in this application. Applicant submits another copy of this Declaration. The Office Action states that "[t]he declaration addressed one of the examples, but is beyond the scope of the instant invention as claimed." Applicant respectfully submits that paragraph 3 of the Richards Declaration states that Examples 1, 2, 3 and 4 of the Minatono reference were performed. Thus, all of the examples in Minatono were addressed - not just one. Furthermore, Applicant has amended Claim 1 to more positively claim a clear gel composition. The Declaration therefore falls squarely within the scope of the instant invention as claimed. Thus, Minatono fails to teach or suggest every limitation of independent Claim 1 or the claims depending therefrom.

Thus, because Minatono fails to disclose every limitation of independent Claim 1, this reference does not anticipate these claims or the claims depending therefrom and cannot therefore be used to support a rejection under § 102(b). Similarly, this reference does not render

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Claims 1-8, 12 and 13 obvious. Accordingly, Applicant respectfully requests withdrawal of this rejection.

#### IV. Allowed Claims

Applicant appreciates the allowance of Claims 14 and 16.

#### V. Conclusion

Applicant respectfully requests withdrawal of the rejections and believes that the claims as presented represent allowable subject matter. However, if the Examiner desires, the applicant is ready for a telephone interview to expedite prosecution. As always, the Examiner is free to call the undersigned at 816.460.2516. Should any fees be necessitated by this response, the Commissioner is hereby authorized to deduct any such fees from Deposit Account No. 19-3140.

Respectfully submitted,

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